

Listing of the Claims:

1. (Currently Amended) A process for preparing an implant for controlled release of a bioactive agent *in vivo* comprising a polymer fiber loaded with one or more bioactive agents, said process comprising a wet spinning technique having the steps of:

a) providing a solution of the polymer in a ~~suitable~~ first solvent immiscible with water;

b) adding an aqueous solution of the bioactive agent to the polymer solution to ~~obtain a water-in-oil~~ form an emulsion;

c) immersing the ~~water-in-oil~~ emulsion in a ~~suitable~~ second solvent miscible with the first solvent, and in which the polymer is essentially miscible by injecting the emulsion through a nozzle into the second solvent; ~~and~~

d) allowing the first solvent to migrate into the second solvent to ~~obtain form~~ a solid; ~~fibrous~~ polymer fiber loaded with the bioactive agent, wherein water content of the aqueous solution in step (b) affects a rate of release of the bioactive agent *in vivo*; and

e) shaping the polymer fiber into an implant.

2. (Currently Amended) A The process according to claim 1, wherein the polymer is biocompatible and biodegradable.

3. (Currently Amended) A The process according to claim 2, wherein the polymer is an amphiphilic block copolymer, comprising hydrophilic blocks and hydrophobic blocks.

4. (Currently Amended) A The process according to claim 3, wherein the polymer is a copolymer comprising a polyalkylene glycol and an aromatic ester.

5. (Currently Amended) A The process according to claim 1, wherein the bioactive agent is ~~chosen~~ selected from the group consisting of antimicrobial agents, ~~such as antibacterial and~~ anti-viral agents, anti-tumor agents, immunogenic agents, lipids, lipopolysaccharides, hormones and growth factors.

6. (Currently Amended) A The process according to claim 1, wherein the bioactive agent is ~~chosen~~ selected from the group consisting of peptides, oligopeptides, polypeptides and proteins.
7. (Canceled)
8. (Currently Amended) A The process according to claim ~~7~~ 1, wherein the first solvent has a greater solubility in the second solvent when the polymer is dissolved in the first solvent.
9. (Currently Amended) A The process according to claim 1, wherein the ~~water-in-oil~~ emulsion is immersed into the second solvent by injecting through a nozzle, a syringe or an extruder.
10. (Currently Amended) A ~~bioactive agent~~ polymer loaded ~~polymer obtainable by the method of~~ with one or more bioactive agents according to claim 1.
11. (Currently Amended) A ~~bioactive agent~~ polymer loaded ~~polymer obtainable by a process according~~ with one or more bioactive agents according to claim 9.
12. (Currently Amended) A bioactive agent loaded polymer according to claim 10, wherein said bioactive agent is a peptide, oligopeptide, polypeptide or protein.
13. (Original) A process for bonding fibers according to claim 1 to form a fibrous mesh, wherein the fibers are collected and are bonded together by use of a suitable solvent mixture.
14. (Original) A fibrous mesh obtainable by a process according to claim 13.
15. (Original) The use of a bioactive agent loaded polymer, according to claim 10, as a carrier for controlled drug release or as a scaffold for tissue engineering.
16. (Original) The use of a fibrous mesh according to claim 14 as a carrier for controlled drug release or as a scaffold for tissue engineering.